

# SAFETY DATA SHEET

## 1. Identification

**Material name:** TREMPRO 644 RED HIGH TEMP-  
**Material:** 6446895 312

**Recommended use and restriction on use**

**Recommended use:** Sealant  
**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Tremco Canadian Sealants  
220 Wicksteed Ave  
Toronto ON M4H 1G7  
CA

**Contact person:** EH&S Department  
**Telephone:** 1-800-263-6046  
**Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Carcinogenicity	Category 1A
Toxic to reproduction	Category 2

#### Unknown toxicity - Health

Acute toxicity, oral	2.5 %
Acute toxicity, dermal	8.5 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	99.5 %

#### Unknown toxicity - Environment

Acute hazards to the aquatic environment	96 %
Chronic hazards to the aquatic environment	100 %

### Label Elements

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** May cause cancer.  
Suspected of damaging fertility or the unborn child.

**Precautionary Statement:**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

**Response:** If exposed or concerned: Get medical advice/attention.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

### 3. Composition/information on ingredients

**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
Amorphous silica	7631-86-9	10 - 30%
Distillates, petroleum, hydrotreated middle	64742-46-7	7 - 13%
Ethyltriacetoxysilane	17689-77-9	1 - 5%
Titanium dioxide	13463-67-7	1 - 5%
Carbon Black	1333-86-4	1 - 5%
Iron oxide	1309-37-1	1 - 5%
Copper phthalocyanine	147-14-8	1 - 5%
Octamethylcyclotetrasiloxane	556-67-2	0.5 - 1.5%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**Ingestion:** Rinse mouth thoroughly.

**Inhalation:** Move to fresh air.

**Skin Contact:** Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

**Eye contact:** Rinse immediately with plenty of water.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** May cause skin and eye irritation.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Symptoms may be delayed.

### 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** No data available.

**Methods and material for containment and cleaning up:** Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

**Notification Procedures:** In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

## 7. Handling and storage

**Precautions for safe handling:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

**Conditions for safe storage, including any incompatibilities:** Store locked up.

## 8. Exposure controls/personal protection

### Control Parameters

**Occupational Exposure Limits**

Chemical Identity	type	Exposure Limit Values	Source
Amorphous silica	TWA	20 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.8 mg/m <sup>3</sup>	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Distillates, petroleum, hydrotreated middle - Inhalable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
Distillates, petroleum, hydrotreated middle - Mist.	PEL	5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Iron oxide - Respirable fraction.	TWA	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Iron oxide - Fume.	PEL	10 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Carbon Black - Inhalable fraction.	TWA	3 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (2011)
Carbon Black	PEL	3.5 mg/m <sup>3</sup>	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Copper phthalocyanine - Fume. - as Cu	TWA	0.2 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)
Copper phthalocyanine - Dust and mist. - as Cu	TWA	1 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (03 2014)

Chemical name	type	Exposure Limit Values	Source
Amorphous silica - Total	TWA	4 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous silica - Respirable.	TWA	1.5 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous silica	TWAEV	10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Amorphous silica - Respirable dust.	TWA	6 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Distillates, petroleum, hydrotreated middle - Mist.	TWA	0.2 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	1 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Distillates, petroleum, hydrotreated middle - Mist.	TWAEV	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Distillates, petroleum, hydrotreated middle - Mist.	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	STEL	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Titanium dioxide - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Iron oxide - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Dust. - as Fe	TWA	5 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Fume. - as Fe	STEL	10 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Respirable fraction.	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Fume. - as Fe	TWA	5 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Iron oxide - Respirable fraction.	TWAEV	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Iron oxide - Total dust.	TWA	10 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Iron oxide - Dust and fume. - as Fe	TWA	5 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Carbon Black - Inhalable	TWA	3 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational

			Health and Safety Regulation 296/97, as amended) (09 2011)
Carbon Black	TWAEV	3.5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Carbon Black	TWA	3.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

**Appropriate Engineering Controls** Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required.

**Eye/face protection:** Wear goggles/face shield.

**Skin Protection**

**Hand Protection:** Use suitable protective gloves if risk of skin contact.

**Other:** No data available.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

**9. Physical and chemical properties**

**Appearance**

**Physical state:** solid

**Form:** Paste

**Color:** Red

**Odor:** Sour/acidic

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flash Point:** > 100 °C > 212 °F(Closed Cup)

**Evaporation rate:** Slower than Ether

**Flammability (solid, gas):** No

**Upper/lower limit on flammability or explosive limits**

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper (%):** No data available.

**Explosive limit - lower (%):** No data available.

<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
<b>Relative density:</b>	1.007
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Practically Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	No data available.
<b>Conditions to Avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.
<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Moderately irritating to skin with prolonged exposure.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	ATEmix: 38,617.17 mg/kg
<b>Dermal Product:</b>	ATEmix: 26,666.67 mg/kg
<b>Inhalation Product:</b>	No data available.



**Repeated dose toxicity****Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**

Amorphous silica	in vivo (Rabbit, 24 hrs): Not irritating
Distillates, petroleum, hydrotreated middle	in vivo (Rabbit, 24 hrs): Not irritating
Ethyltriacetoxysilane	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Titanium dioxide	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Carbon Black	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Iron oxide	in vivo (Rabbit, 1 - 72 hrs): Not irritating
Copper phthalocyanine	in vivo (Rabbit, 24 - 72 hrs): Not irritating

**Respiratory or Skin Sensitization****Product:** No data available.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Distillates, petroleum, hydrotreated middle	Overall evaluation: Carcinogenic to humans. Overall evaluation: Not classifiable as to carcinogenicity to humans.
Titanium dioxide	Overall evaluation: Possibly carcinogenic to humans.
Carbon Black	Overall evaluation: Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

Distillates, petroleum, hydrotreated middle	Known To Be Human Carcinogen.
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**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity****In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** Suspected of damaging fertility or the unborn child.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**Titanium dioxide LC 50 (Mummichog (*Fundulus heteroclitus*), 96 h): > 1,000 mg/l MortalityOctamethylcyclotetrasiloxane LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 14 d): 0.0085 - 0.013 mg/l Mortality**Aquatic Invertebrates****Product:** No data available.**Specified substance(s):**Titanium dioxide EC 50 (Water flea (*Daphnia magna*), 48 h): > 1,000 mg/l Intoxication**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**

Distillates, petroleum, hydrotreated middle	NOAEL (Oncorhynchus mykiss, 14 d): 0.069 mg/l QSAR
Titanium dioxide	LC 0 (Coregonus autumnalis migratorius G., 30 d): 3 mg/l experimental result
Carbon Black	NOAEL (Salmo sp., 30 d): 17 mg/l QSAR
Iron oxide	LOAEL (Pimephales promelas, 33 d): 1.6 mg/l experimental result
Octamethylcyclotetrasiloxane	LC 50 (Oncorhynchus mykiss, 96 h): > 23 µg/l experimental result NOAEL (Oncorhynchus mykiss, 93 d): >= 4.4 µg/l experimental result LC 50 (Oncorhynchus mykiss, 96 h): > 31 µg/l experimental result LC 80 (Oncorhynchus mykiss, 18 d): 23 µg/l experimental result NOAEL (Oncorhynchus mykiss, 18 d): < 23 µg/l experimental result

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

Octamethylcyclotetrasiloxane Fathead minnow (Pimephales promelas), Bioconcentration Factor (BCF): 3,800 - 4,200 (Flow through)

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse Effects:** No data available.

**13. Disposal considerations**

**Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:** No data available.

## 14. Transport information

**TDG:**

Not Regulated

**CFR / DOT:**

Not Regulated

**IMDG:**

Not Regulated

## 15. Regulatory information

### US Federal Regulations

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**  
None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
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**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
Delayed (Chronic) Health Hazard

**SARA 302 Extremely Hazardous Substance**  
None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**  

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Copper phthalocyanine	

### SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Amorphous silica	500 lbs
Distillates, petroleum, hydrotreated middle	500 lbs
Ethyltriacetoxysilane	500 lbs
Titanium dioxide	500 lbs
Carbon Black	500 lbs
Iron oxide	500 lbs
Copper phthalocyanine	500 lbs
Octamethylcyclotetrasiloxane	500 lbs

### SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

### Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

### US State Regulations

#### US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

#### US. New Jersey Worker and Community Right-to-Know Act

##### Chemical Identity

Amorphous silica  
Distillates, petroleum, hydrotreated middle  
Titanium dioxide

#### US. Massachusetts RTK - Substance List

##### Chemical Identity

Amorphous silica  
Distillates, petroleum, hydrotreated middle  
Titanium dioxide

#### US. Pennsylvania RTK - Hazardous Substances

##### Chemical Identity

Amorphous silica  
Distillates, petroleum, hydrotreated middle  
Titanium dioxide

#### US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

### Other Regulations:

Regulatory VOC (less water and exempt solvent):	30 g/l
VOC Method 310:	2.98 %

### Inventory Status:

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Australia AICS:	All components in this product are listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	All components in this product are listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	All components in this product are listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	All components in this product are listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

**16. Other information, including date of preparation or last revision****Revision Date:** 08/04/2015**Version #:** 1.0**Further Information:** No data available.**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



